EPA

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Superfund Sites Work for Communities:

A Look at the Beneficial Effects of Superfund Redevelopment in EPA Region 3

Kimberton site (Pennsylvania)

What's Inside?

Preface

Every day, EPA's Superfund program makes a visible difference in communities nationwide. The revitalization of communities affected by contaminated lands is a key part of Superfund's mission, delivering significant benefits one community at a time, all across the country. Through EPA's Superfund Redevelopment Initiative, the Agency contributes to the economic vitality of these communities by supporting the return of sites to productive use. These regional reports highlight these community-led efforts in action, as EPA launches a new era of partnerships and works toward a sustainable future.

Introduction

The states in EPA Region 3 – Delaware, Maryland, Pennsylvania, Virginia, West Virginia – and the District of Columbia are part of one of the nation's most diverse, developed and populated regions. Residents and visitors alike benefit from the region's diverse landscapes, providing occasions to enjoy wildlife and remarkable natural resources such as the Appalachian Mountains and the Chesapeake Bay. Focused on growing industry, celebration of cultural heritage and ecological preservation, Mid-Atlantic communities are planning for a future that sustains long-term economic growth and healthy environments. A key part of this work centers on finding new uses for old industrial and federal facility sites, including Superfund sites. The Superfund program in EPA Region 3 is proud to play a role in these efforts.

The cleanup and reuse of Superfund sites can often restore value to site properties and surrounding communities that have been negatively affected by contamination and blighted structures. Site reuse can revitalize a local economy with new businesses, employment opportunities, tax revenues and local spending. Reuse of Superfund sites can yield other important social and environmental benefits for communities as well. Through programs like the Superfund Redevelopment Initiative (SRI), EPA Region 3 helps communities reclaim cleaned up Superfund sites and transform them into beneficial assets. Factoring in future use of Superfund sites as part of the cleanup process helps pave the way for their safe reuse. EPA Region 3 works closely with state agencies and local officials to overcome barriers that have kept many Superfund sites vacant and underused for decades. EPA Region 3 also works to ensure that businesses on Superfund properties can continue operating safely during site investigations and cleanup, enabling these businesses to continue providing communities with services, jobs and revenue.

Atlantic Wood Industries, Inc. site (Virginia)

The results are impressive. Superfund sites across Region 3 are now the location of business parks, retail shops and public service facilities. Many sites continue to host industrial operations such as large-scale manufacturing facilities and warehouses. Others are now nature preserves, recreational trails and athletic fields. On-site businesses and organizations at current and former Region 3 Superfund sites provide nearly 10,000 jobs and contribute an estimated $618 million in annual employment income for residents. Restored site properties also generate property tax revenues for local governments.

This report looks at how reuse activities at Superfund sites make a difference in communities in Region 3. In particular, the report reviews some of the beneficial effects of Superfund reuse activities at current and former Superfund sites, as well as the land values and property taxes associated with Superfund sites returned to use following cleanup.

Support for Superfund Reuse

EPA Region 3 remains committed to making a difference in communities through the cleanup and reuse of Superfund sites. In addition to protecting human health and the environment through the Superfund program, EPA Region 3 partners with stakeholders to encourage reuse opportunities at Superfund sites. EPA Region 3 helps communities and cleanup managers consider reuse options during the cleanup planning stage and evaluate remedies already in place to ensure appropriate reuse at cleaned-up sites. In addition, EPA participates in partnerships with communities and encourages opportunities to support Superfund redevelopment projects that emphasize environmental and economic sustainability.

Specific reuse support efforts in EPA Region 3 include:

- Identifying and evaluating local land use priorities to align these priorities with site cleanup plans through the reuse planning process.
- Facilitating cleanup and reuse discussions to help resolve key issues between parties interested in site redevelopment.
- Supporting targeted projects intended to help Region 3 communities and EPA find the right tools to move reuse forward at sites.
- Making efforts to help address communities' and developers' liability, safety and reuse concerns related to Superfund site reuse through development of educational materials, comfort letters, developer agreements and environmental status reports that provide information about the appropriate use of sites.
- Supporting partnerships with groups committed to putting Superfund sites back into use, such as the Rails-to-Trails Conservancy, the U.S. Soccer Foundation, the U.S. Fish and Wildlife Service and local economic development organizations.
- Developing reuse fact sheets, videos, websites, reuse case studies and Return to Use Demonstration Project summaries to share opportunities and lessons associated with Superfund redevelopment.

All of these efforts have helped build expertise across Region 3, making it easier to consider future use of Superfund sites prior to cleanup and easier to identify opportunities for removing reuse barriers. These efforts also help other communities, state agencies, potentially responsible parties and developers better understand potential future uses for Superfund sites. This helps stakeholders collaborate and engage early in the cleanup process, ensuring that Superfund sites are successfully restored as productive assets for communities. Most importantly, these efforts lead to significant returns for communities, including jobs, annual income and tax revenues.

Avtex Fibers, Inc. site (Virginia)

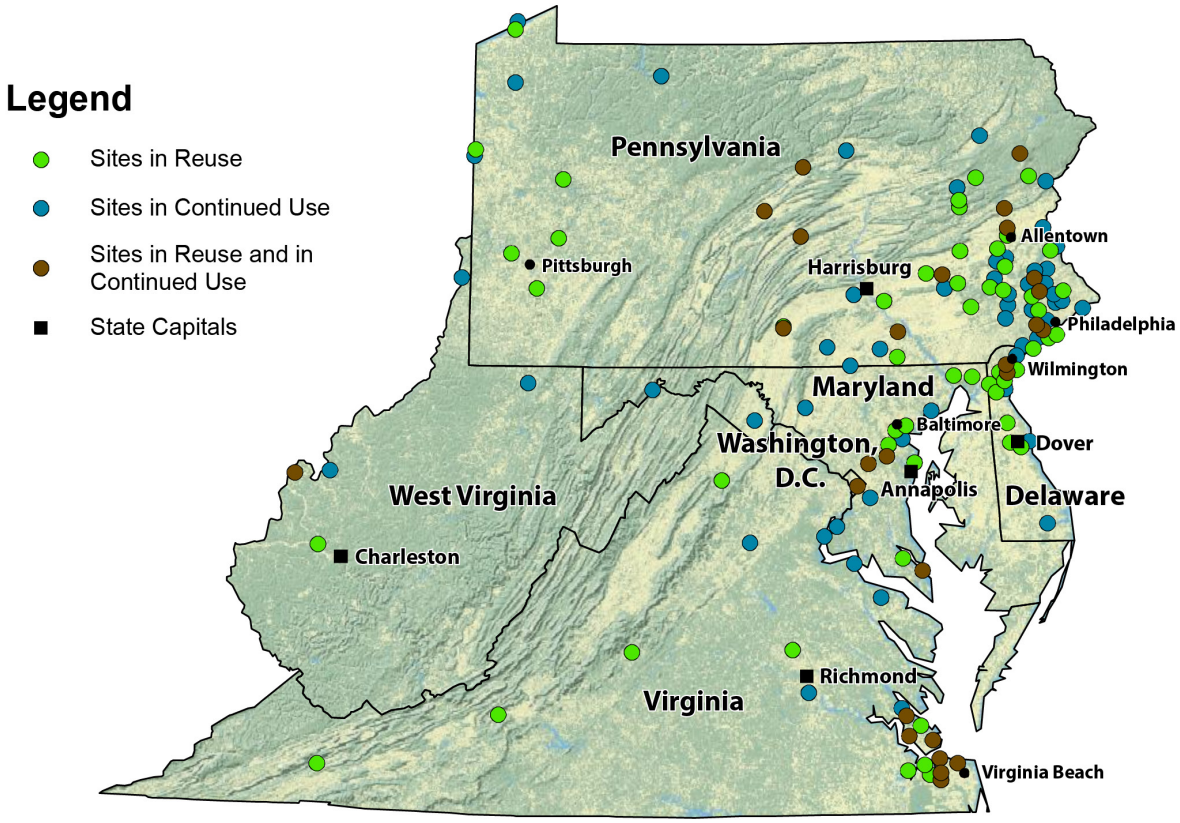
Palmerton Zinc Pile site (Pennsylvania)

Superfund Reuse: The Big Picture

EPA has placed 215 sites in Region 3 on the National Priorities List (NPL) since the Superfund program began in 1980. The Agency oversees investigation and cleanup of additional Superfund alternative sites in the region, and performs or oversees short-term cleanup actions as well. Whenever possible, EPA seeks to integrate reuse priorities into cleanup plans.

U.S. Titanium site (Virginia)

As of 2013, over 130 NPL and Superfund alternative sites have either new uses in place or uses that have remained in place since before cleanup. Many of these sites have been redeveloped for commercial, industrial and community use purposes. Others remain in use as federal facilities, recreational spaces, or ecological and agricultural areas. The following sections take a closer look at some of the beneficial effects of businesses located at current and former Superfund sites, as well as the land values and property taxes associated with Superfund sites returned to productive use following cleanup.



Beneficial Effects of Superfund Site Reuse

Businesses and Jobs

EPA has collected economic data for over 400 commercial businesses, manufacturers and civic organizations at over 130 sites in reuse and continued use in Region 3. See the State Reuse Profiles (pp. 10-14) for each Region 3 state's reuse details. Businesses and organizations located on these sites fall within several different sectors, including wholesale and retail trade, construction, manufacturing, transportation and warehousing, professional, scientific and technical services, health care and social services, and educational institutions.

Businesses, facilities and organizations at these sites include international chemical company BASF Corporation, restaurants, national drug store and pharmacy chain Walgreens, fire and police stations, the YMCA, the U.S. Department of Geological Survey, and campus facilities for Pennsylvania State University.

In total, businesses and organizations on these sites employ nearly 10,000 people, contributing an estimated $618 million in annual employment income with about $1.4 billion in estimated annual sales. Employment income earned helps inject money into local economies. It also helps generate state revenue through personal state income taxes. In addition to helping local communities by providing employment opportunities, these businesses help local economies through direct purchases of local supplies and services. On-site businesses that produce retail sales and services also generate tax revenues through the collection of sales taxes, which support state and local governments. In addition, most businesses operating on sites in Region 3 generate tax revenues through payment of state corporate income or related taxes. Table 1 provides more detailed information.

Dover Gas Light Co. site (Delaware)

Region 3 Sites in Reuse and Continued Use: Business and Job Highlights

Businesses Identified
413

Estimated Annual Sales
$1.4 billion

Number of People Employed
9,747

Total Annual Employee Income
$618 million

Table 1. Site and business information for Region 3 sites in reuse and continued use (2013)

	Number of Sites	Sites with Identified On-Site Businesses[a]	On-Site Businesses Identified[b]	Total Annual Sales[c,d]	Total Employees	Total Annual Employee Income
In Reuse	54	26	174	$396 million	3,286	$207 million
In Continued Use	54	29	200	$932 million	5,329	$324 million
In Continued Use and In Reuse	28	12	39	$57 million	1,132	$87 million
Total	**136**	**67**	**413**	**$1.4 billion**	**9,747**	**$618 million**

[a] Also includes other organizations such as government agencies, nonprofit organizations and civic institutions.
[b] Business information is not available for all businesses on all Superfund sites in reuse or continued use.
[c] For information on the collection of businesses, jobs and sales data, see the "Sources" section of this report.
[d] Annual sales figures are not available (or applicable) for every organization that makes jobs data available. As a result, in some instances, total annual sales are lower than total annual employment income.

Definitions of Site Use Terms

In Reuse: There is a new land use or uses on all or part of a site; either the land use has changed (e.g., from industrial use to commercial use) or the site is now in use after being vacant.

In Continued Use: Historical uses at a site remain active; these uses were in place when the Superfund process started at the site.

In Reuse and Continued Use: Part of a site is in continued use and part of the site is in reuse.

Region 3 Site Examples

In Reuse: Abex Corporation (Virginia) – a former metal foundry and naval shipyard, the area now supports commercial and industrial businesses, a park and several public services facilities.

In Continued Use: Crossley Farm (Pennsylvania) – a farm, which remains in use today, has been located on site since 1927.

In Reuse and Continued Use: Fort George G. Meade (Maryland) – an aviation facility remains in place; following cleanup, a large part of the site is now a wildlife refuge.

Abex Corporation


Crossley Farm


Fort George G. Meade

Property Values and Property Tax Revenues

Properties cleaned up under the Superfund program and returned to use may increase in value. Between 1997 and 2003, redevelopment at the Publicker Industries, Inc. site in Pennsylvania resulted in a property value increase of almost $4 million on site and a property value increase of $4.3 million within a quarter-mile of the site. This increased value can boost property tax revenues, which help pay for local government operations, public schools, transit systems and other public services.

Identifying increases in property values and local property taxes following cleanup and reuse is challenging due to several factors, including limited availability of historical property values, differences in timing of events at sites, and frequency and timing of property value assessments by local agencies. Likewise, many factors affect property values, including external economic and neighborhood factors not related to a site's contamination or Superfund site status. Though it is difficult to isolate the different effects of Superfund cleanup and reuse on property values, the values do provide insight into current market values of former and current Superfund properties.

EPA has collected property value tax data for 14 Superfund sites in reuse and continued use in Region 3. These sites span 95 property parcels and 522 acres. Property values consist of land value, which is simply the value of a parcel of land excluding

any infrastructure, and the improvement value, which includes any buildings and infrastructure on a property. When sites are reused, some or all of these improvements may be new or already be in place. In some cases, the breakdown showing both the land value and improvement value is not always available; instead, only the total property value may be available. Sites in Region 3 have a total property value of about $23 million. These properties have a total land value of about $9 million and a total improvement value of about $14 million. Property tax information is available for six of the 14 Superfund sites with property value data. The properties generate a combined $96,000 in local annual property taxes.

Table 2. Property value and tax information for sites in reuse and continued use in Region 3[a]

Total Land Value (14 sites)[b]	Total Improvement Value (14 sites)	Total Property Value (14 sites)	Total Annual Property Taxes (6 sites)[c]
$9 million	$14 million	$23 million	$96,000

[a] Results are based on an EPA SRI effort in 2013 that calculated on-site property values and property taxes for a subset of Superfund sites. The property value and tax amounts reflect the latest property value year and tax data year available in county assessor data sets, which varied from 2011 to 2013. For additional information, see the "Sources" section of this report.
[b] Detailed (land and improvement) property value data as well as tax data was not available for every site in Region 3.
[c] Property tax data was not available for eight of the 14 Superfund sites that had property value data.

Recreational Amenities: Golf Courses and Soccer Fields on Superfund Sites

In addition to hosting commercial developments, retail centers and industrial facilities with businesses and jobs, many Region 3 sites in reuse and continued use provide remarkable recreational amenities, including sports fields and golf courses. These recreation areas support the productive reuse of remediated sites and help sustain healthy communities. The economic benefits are significant as well. Homebuyers seeking long-term investments are drawn to areas with valued amenities and services, including recreation areas, parks and athletic facilities. Increased property values lead to additional property taxes that strengthen public services provided by local governments and state agencies. Many Mid-Atlantic communities are redeveloping vacant Superfund sites into recreational assets.

Golf Courses

Ohio River Park (Neville Island, Pennsylvania): The site, once a dumping ground for municipal and metal foundry waste materials, is now home to the 32-acre Robert Morris University (RMU) Island Sports Center. The facility employs about 14 people and generates over $500,000 in annual business sales. The facility's features include the Golf Dome – an indoor driving range – an 18-hole mini golf course, ice skating and ice hockey on an indoor skating rink, a large outdoor running track, and sports fields for football and soccer.

Miniature golf course at the RMU Island Sports Center

Soccer Fields

Whitmoyer Laboratories (Jackson Township, Pennsylvania): This former pharmaceutical manufacturing facility is now a regional recreation resource. EPA signed a prospective purchaser agreement (PPA) with Jackson Township and the site's responsible party, addressing liability concerns. The responsible party incorporated the community's recreational reuse priorities into the site's cleanup plan. The U.S. Soccer Foundation was consulted during the construction of the soccer fields. Jackson Recreation Park opened in 2005. It offers baseball and soccer fields as well as tree-lined walking trails. Used heavily by local schools and the community, the site is located in a rapidly growing part of Lebanon County.

Soccer game at Jackson Recreation Park

Reuse in Action

Valued Community Services in a Growing Urban Area

Located in Portsmouth, Virginia, the Abex Corporation Superfund site was once a metals foundry. From 1928 to 1978, disposal of foundry waste sands and emissions from the smelting furnaces contaminated on-site soil and several nearby properties with lead, heavy metals and other contaminants. EPA added the area to the NPL in 1990. Cleanup included the removal of contaminated structures and soils.

With the surrounding area growing rapidly, reuse of the Superfund site was a top priority for the City of Portsmouth. Today, the site is home to several public service facilities, including a fire station, a community health center and a police training academy. The fire station employs 20 firefighters and paramedics, and contributes over $1.2 million in estimated annual employment income. The Hampton Roads Community Health Center provides primary care, pharmaceutical, dental and family planning health services to the local community. The center employs 50 people and generates an estimated $5.8 million in annual revenues. Other reuses include a commercial distribution facility, industrial businesses and a park. The total value of the site property in 2012 was $12.6 million. For more information, see EPA SRI's "Where You Live" page.

Recreational Facilities Benefit Community Health and the Economy

"Right now the property is an eyesore, and the [YMCA] redevelopment will completely transform it. Haverford residents are clamoring for this and all it will bring to the community."

– Lori Hanlon-Widdop, Assistant Haverford Township Manager, from the Campaign for the Haverford Township Area YMCA

The 12-acre Havertown PCP Superfund site is located in Havertown Township, Pennsylvania. From 1947 to 1991, National Wood Preservers operated a wood treatment facility on site. The company disposed of liquid waste materials in an on-site well. Over time, these materials contaminated surrounding ground water. Spills on the surface also created contaminated areas of soil and surface water. EPA added the site to the NPL in 1983. To date, EPA has removed contaminated materials and capped areas to protect public health. Ground water treatment is ongoing.

Today, parts of the site remain in continued use. Businesses on site include automobile repair shops, a fast food restaurant and a convenience grocery store. In total, the businesses employ 45 workers, generate over $2.6 million in estimated annual sales and contribute over $1.3 million in estimated annual employment income.

EPA is also working with interested parties to support the redevelopment of other parts of the site. For example, after demolishing an old factory, the YMCA approached Havertown about using the property for a new gymnasium. The YMCA worked with EPA and the community to develop reuse plans that would be compatible with ongoing ground water treatment. Crews began construction in May 2012; the 75,000-square-foot facility opened in October 2013. The Haverford Area YMCA features three swimming pools, a wellness center, an indoor running track, a workout gym and locker rooms. The Haverford branch employs about 150 employees, serves 20,000 area residents and has a $4 million estimated annual payroll. The site's reuse provides valued recreational amenities and wellness services that benefit the entire community. For more information, see EPA SRI's "Where You Live" page.

Large-Scale Manufacturing and Renewable Energy Development

The 22-acre E.I. Du Pont De Nemours & Co., Inc. (Newport Pigment Plant Landfill) Superfund site is located in Newport, Delaware. The site includes industrial landfills and a manufacturing facility. Beginning in 1902, the facility made zinc and barium-based pigments and dyes. After DuPont purchased the facility in 1929, the company continued to make pigments and other chemical products. Operators disposed of industrial wastes in a landfill on site. Over time, these wastes flowed into surrounding wetlands and contaminated sediments, surface water and ground water with a variety of contaminants, including heavy metals. EPA added the site to the NPL in 1990. Cleanup included wetland restoration, extension of public water supplies, landfill capping and ground water treatment.

"Generating solar energy benefits the residents of Newport, and positively impacts our state – increasing our competitiveness, reducing air pollution, improving public health and creating jobs."

– Jack Markell, Governor of Delaware, speaking at the ribbon cutting ceremony in December 2013.

Today, active manufacturing facilities remain on site. In 1984, Ciba-Geigy (now BASF Corporation) purchased the pigment plant. The company employs about 600 workers and contributes an estimated $46 million in annual employment income to the local economy. Though DuPont no longer operates the facility, the company seized an opportunity to optimize renewable energy opportunities at the site. Tangent Energy, Greenwood Energy and DuPont redeveloped the former landfill on site into a solar farm. DuPont Apollo, a subsidiary of DuPont, created solar modules for the project. A ceremony in December 2013 celebrated the solar farm's completion. The 548-kilowatt facility generates about 729,000 kilowatt hours of energy each year, enough to power about 60 homes. The solar farm provides a consistent renewable energy option for Newport and reduces the community's greenhouse gas emissions by 350 tons per year. For more information, see EPA SRI's "Where You Live" page.

State Reuse Profile: Delaware

EPA partners with the Delaware Department of Natural Resources and Environmental Control to oversee the investigation and cleanup of Superfund sites in Delaware. As of 2013, Delaware had 14 Superfund sites with either new uses in place or uses remaining in place since before cleanup. EPA has collected economic data for 24 businesses and organizations operating on nine sites in reuse and continued use in Delaware. The businesses and organizations employ 930 people, contribute an estimated $63.8 million in annual employment income and have about $7.1 million in estimated annual sales.

Table 3. Detailed site and business information for Superfund sites in reuse and continued use in Delaware (2013)

	Number of Sites[a]	On-Site Businesses Identified	Total Annual Sales[b]	Total Employees	Total Annual Employee Income
In Reuse	8	8	$0.9 million	131	$7.4 million
In Continued Use	4	12	$5.7 million	190	$9.9 million
In Continued Use and In Reuse	2	4	$0.5 million	609	$46.5 million
Total	**14**	**24**	**$7.1 million**	**930**	**$63.8 million**

[a] One site is a federal facility. Federal facility sites are not included in calculations of total businesses, jobs, income or annual sales.
[b] Annual sales figures are not available (or applicable) for every organization that makes jobs data available. As a result, in some instances, total annual sales are lower than total annual employment income.
Note: Business information is not available for all businesses on all Superfund sites in reuse or continued use.

Property Values and Property Tax Revenues

EPA has collected property value data for two Superfund sites in reuse and continued use in Delaware. These sites span 19 property parcels and 221 acres and have a total property value over $2.2 million. The total land value of the site properties is over $1.4 million. Their total improvement value is over $804,000. The site properties generate nearly $39,500 in annual local property taxes.

Table 4. Property value and tax information for sites in reuse and continued use in Delaware

Total Land Value (2 sites)	Total Improvement Value (2 sites)	Total Property Value (2 sites)	Total Annual Property Taxes (2 sites)
$1,427,600	$804,200	$2,231,800	$39,445

Did You Know?

The City of New Castle now owns the New Castle Spill site, a former plastics production facility in New Castle, Delaware. The City renovated a historic trolley barn into offices now occupied by the local Public Works Department. The Department employs about 20 workers and contributes an estimated $2 million in annual employment income.

State Reuse Profile: Maryland

EPA partners with the Maryland Department of the Environment to oversee the investigation and cleanup of Superfund sites in Maryland. As of 2013, Maryland had 15 Superfund sites with new uses in place or uses remaining in place since before cleanup. EPA has collected economic data for 14 businesses and organizations operating on four sites in reuse in Maryland. The businesses and organizations employ 218 people, contribute an estimated $10.8 million in annual employment income and have about $20.2 million in estimated annual sales.

Table 5. Detailed site and business information for Superfund sites in reuse and continued use in Maryland (2013)

	Number of Sites[a]	On-Site Businesses Identified	Total Annual Sales	Total Employees	Total Annual Employee Income
In Reuse	7	14	$20.2 million	218	$10.8 million
In Continued Use	5	0	-	-	-
In Continued Use and In Reuse	3	0	-	-	-
Total	**15**	**14**	**$20.2 million**	**218**	**$10.8 million**

[a] Eight sites are federal facilities. Federal facilities are not included in calculations of total businesses, jobs, income or annual sales.
Note: Business information is not available for all businesses on all Superfund sites in reuse or continued use.

Property Values and Property Tax Revenues

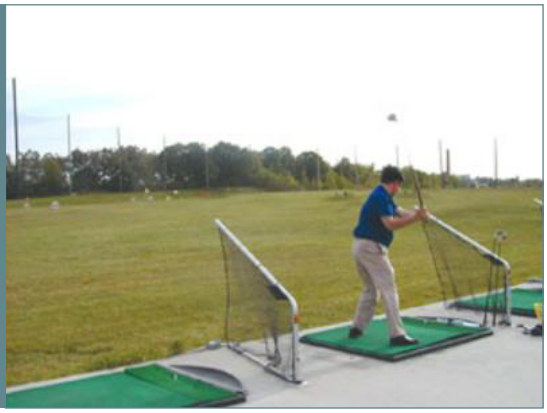
EPA has collected property value data for two Superfund sites in reuse in Maryland. These sites span five property parcels and 26 acres and have a total property value over $2 million. The total land value of the site properties is over $1 million. Their total improvement value is over $1 million. The site properties generate over $41,000 in annual local property taxes.

Table 6. Property value and tax information for sites in reuse in Maryland

Total Land Value (2 sites)	Total Improvement Value (2 sites)	Total Property Value (2 sites)	Total Annual Property Taxes (2 sites)
$1,006,300	$1,019,400	$2,025,700	$41,240

Did You Know?

The Kane & Lombard Street Drums site in Baltimore, Maryland, was once an open landfill. It is now home to a trailer repair facility, a fire protection service company and the Bayview Golf Center.



State Reuse Profile: Pennsylvania

EPA partners with the Pennsylvania Department of Environmental Protection to oversee the investigation and cleanup of Superfund sites in Pennsylvania. As of 2013, Pennsylvania had 76 Superfund sites with either new uses in place or uses remaining in place since before cleanup. EPA has collected economic data for 350 businesses and organizations operating on 43 sites in reuse and continued use in Pennsylvania. The businesses and organizations employ 8,017 people, contribute an estimated $513 million in annual employment income and have about $1.3 billion in estimated annual sales.

Table 7. Detailed site and business information for Superfund sites in reuse and continued use in Pennsylvania (2013)

	Number of Sites[a]	On-Site Businesses Identified	Total Annual Sales[b]	Total Employees	Total Annual Employee Income
In Reuse	29	135	$0.35 billion	2,561	$171.4 million
In Continued Use	34	181	$0.93 billion	4,933	$301.7 million
In Continued Use and In Reuse	13	34	$.056 billion	523	$40.1 million
Total	**76**	**350**	**$1.3 billion**	**8,017**	**$513.2 million**

[a] Six sites are federal facilities. Federal facilities are not included in calculations of total businesses, jobs, income or annual sales.
[b] Annual sales figures are not available (or applicable) for every organization that makes jobs data available. As a result, in some instances, total annual sales are lower than total annual employment income.
Note: Business information is not available for all businesses on all Superfund sites in reuse or continued use.

Property Values and Property Tax Revenues

EPA has collected property value data for seven Superfund sites in reuse and continued use in Pennsylvania. These sites span 26 property parcels and 200 acres and have a total property value of nearly $6 million. The total land value of the site properties is about $3 million. Their total improvement value is about $3 million. EPA found tax information for two of the site properties. These site properties generate nearly $15,000 in annual local property taxes.

Table 8. Property value and tax information for sites in reuse and continued use in Pennsylvania

Total Land Value (7 sites)	Total Improvement Value (6 sites)	Total Property Value (7 sites)	Total Annual Property Taxes (2 sites)
$2,825,970	$2,951,345	$5,777,615	$14,974

Did You Know?

The Enterprise Avenue site in Philadelphia was once an unpermitted dumping ground. Following cleanup, the Philadelphia Department of Aviation completed a 5,000-foot-long commuter runway, Runway 8-26, for the Philadelphia International Airport. The runway expansion on site reduces flight delays and traffic congestion.

State Reuse Profile: Virginia

EPA partners with the Virginia Department of Environmental Quality to oversee the investigation and cleanup of Superfund sites in Virginia. As of 2013, Virginia had 23 Superfund sites with either new uses in place or uses remaining in place since before cleanup. EPA has collected economic data for 19 businesses and organizations operating on seven sites in reuse and continued use in Virginia. The businesses and organizations employ 316 people, contribute an estimated $15.3 million in annual employment income and have about $25 million in estimated annual sales.

Table 9. Detailed site and business information for Superfund sites in reuse and continued use in Virginia (2013)

	Number of Sites[a]	On-Site Businesses Identified	Total Annual Sales[b]	Total Employees	Total Annual Employee Income
In Reuse	9	16	$25.0 million	276	$13.2 million
In Continued Use	6	2	-	40	$2.1 million
In Continued Use and In Reuse	8	1	-	-	-
Total	**23**	**19**	**$25.0 million**	**316**	**$15.3 million**

[a] Eleven sites are federal facilities. Federal facilities are not included in calculations of total businesses, jobs, income or annual sales.
[b] Annual sales figures are not available (or applicable) for every organization that makes jobs data available. As a result, in some instances, total annual sales are lower than total annual employment income.
Note: Business information is not available for all businesses on all Superfund sites in reuse or continued use.

Property Values and Property Tax Revenues

EPA has collected property value data for two Superfund sites in reuse in Virginia. These sites span 43 property parcels and 71 acres and have a total property value of nearly $13 million. The total land value of the site properties is over $3.5 million. Their total improvement value is over $9 million. Property tax information was not available for these sites.

Table 10. Property value and tax information for sites in reuse in Virginia

Total Land Value (2 sites)	Total Improvement Value (1 site)	Total Property Value (2 sites)	Total Annual Property Taxes (0 sites)
$3,582,400	$9,035,200	$12,617,600	-

Did You Know?

The Former Nansemond Ordnance Depot site in Suffolk, Virginia, was a long-time supply forwarding annex for the U.S. Navy. Part of the area was redeveloped into Bridgeway Technology Center – an office, technology, and research and development facility. The local government plans to develop the Hampton Roads Technology Park on another part of the site. Tidewater Community College also has a local campus on site.

State Reuse Profile: West Virginia

EPA partners with the West Virginia Department of Environmental Protection to oversee the investigation and cleanup of Superfund sites in West Virginia. As of 2013, West Virginia had seven Superfund sites with either new uses in place or uses remaining in place since before cleanup. EPA has collected economic data for six businesses and organizations operating on four sites in reuse and continued use in West Virginia. The businesses and organizations employ 266 people and contribute an estimated $14 million in annual employment income.

Table 11. Detailed site and business information for Superfund sites in reuse and continued use in West Virginia (2013)

	Number of Sites[a]	On-Site Businesses Identified	Total Annual Sales[b]	Total Employees	Total Annual Employee Income
In Reuse	1	1	-	100	$3.8 million
In Continued Use	5	5	$160,000	166	$10.8 million
In Continued Use and In Reuse	1	-	-	-	-
Total	**7**	**6**	**$160,000**	**266**	**$14.6 million**

[a] Two sites are federal facilities. Federal facility sites are not included in calculations of total businesses, jobs, income or annual sales.
[b] Annual sales figures are not available (or applicable) for every organization that makes jobs data available. As a result, in some instances, total annual sales are lower than total annual employment income.
Note: Business information is not available for all businesses on all Superfund sites in reuse or continued use.

Property Values and Property Tax Revenues

EPA has collected property value data for one Superfund site in reuse in West Virginia. This site spans two property parcels and 4 acres. It has a total land value of $109,260, a total improvement value of $35,040, and a total property value of $144,300. Property tax information was not available for this site.

Table 12. Property value and tax information for sites in reuse in West Virginia

Total Land Value (1 site)	Total Improvement Value (1 site)	Total Property Value (1 site)	Total Annual Property Taxes (0 sites)
$109,260	$35,040	$144,300	-

Did You Know?

A chemical processing facility was located at the Fike Chemical, Inc. site in Nitro, West Virginia, until 1988. Today, a company uses capped areas for employee and tanker truck parking as well as truck washing and maintenance. The business employs about 100 people, providing over $3.8 million in estimated annual employment income to the community.

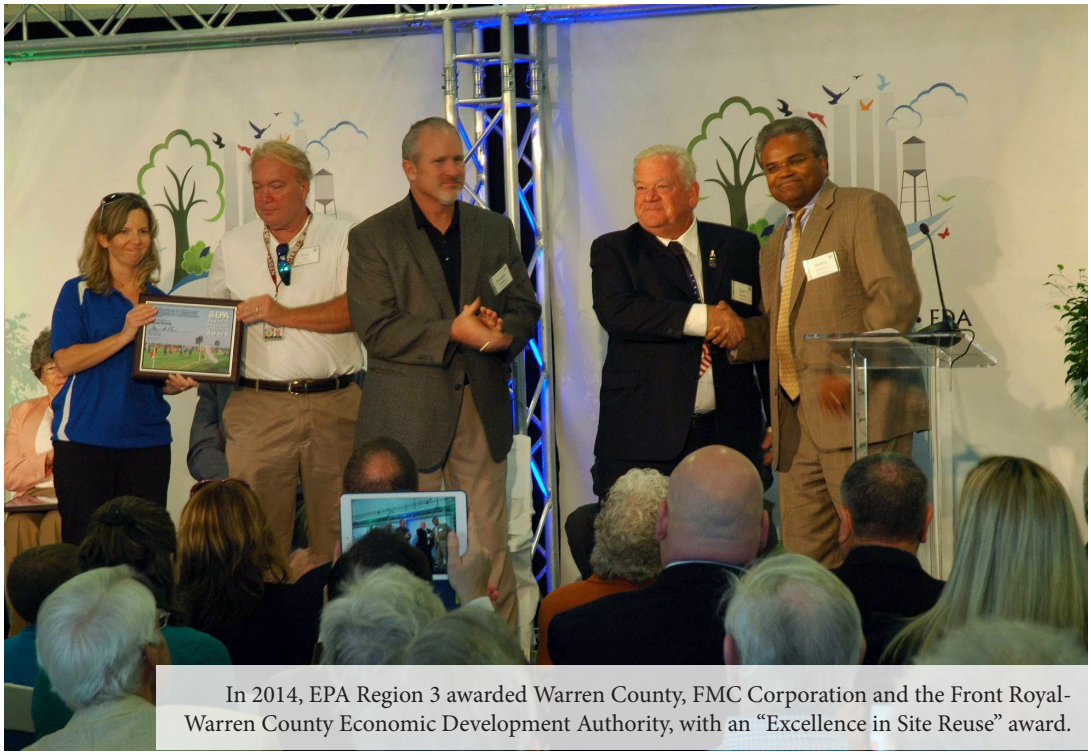
Reuse on the Horizon

Economic Redevelopment and Ecological Enhancement in Virginia

Located in Front Royal, Virginia, the 440-acre Avtex Fibers, Inc. Superfund site was once the heart of local industry. At one time, the Avtex Fibers plant was the world's largest producer of rayon – a key product for NASA's space shuttle program as well as for parachutes and jump suits made by the Department of War during World War II. Facility operators disposed of waste materials and byproducts from the manufacturing process in on-site impoundments. Over time, these materials contaminated ground water, nearby residential wells and the South Fork of the Shenandoah River. EPA added the site to the NPL in 1986. Cleanup activities, led by FMC Corporation under EPA oversight, included removal of contaminated soils, wastes, deteriorated buildings and sewer lines. EPA then collected and treated contaminated stormwater. Ground water treatment is ongoing, with affected residents connected to the public water supply. The site's remedy is compatible with commercial and industrial reuse.

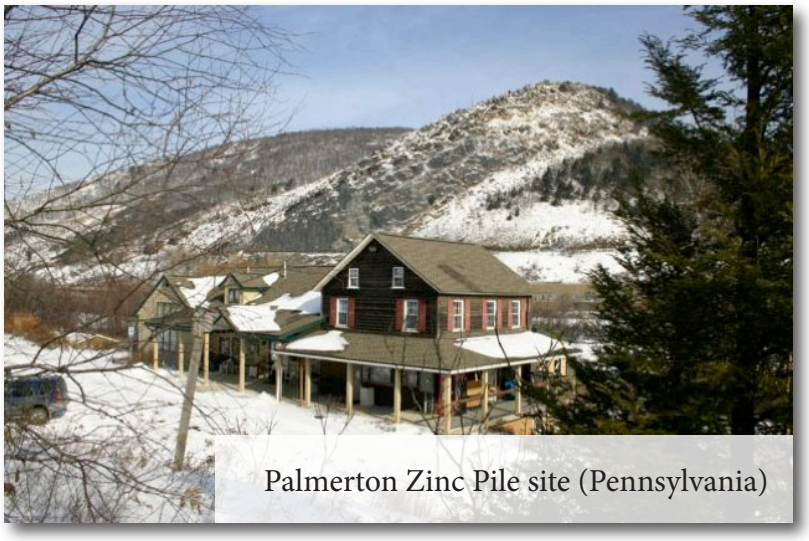
Early on, EPA, the Virginia Department of Environmental Quality, FMC Corporation, local government and community stakeholders recognized the area's importance. Led by the local Economic Development Authority (EDA), the community developed plans for sports facilities, a 240-acre conservancy park and a 165-acre business development. In 2006, the Skyline Soccerplex, a 30-acre recreation facility featuring four soccer fields and a skate park, opened on site, the result of hard work by the community and partnerships with the U.S. Soccer Foundation and other stakeholders. Local youth soccer clubs now use the Skyline Soccerplex for practices and tournaments. Other areas of the park include reconstructed wetlands and restored habitats that attract a variety of native wildlife to the area.

Today, redevelopment efforts are ongoing. The local EDA is developing plans for the Royal Phoenix Business Park, which will feature commercial and industrial businesses focused on technology and hospitality services. When it opens, the facility will generate jobs and tax revenues for Front Royal and surrounding Warren County. The adjacent conservancy park will provide recreation opportunities, including hiking and biking trails, for area residents and visitors. Early planning and collaborative partnerships have made the site's reuse possible. In September 2014, EPA Region 3 awarded FMC Corporation, Warren County and the Front Royal-Warren County Economic Development Authority with an "Excellence in Site Reuse" award for facilitating safe and productive reuse of the site for recreational, ecological and economically beneficial uses.



In 2014, EPA Region 3 awarded Warren County, FMC Corporation and the Front Royal-Warren County Economic Development Authority, with an "Excellence in Site Reuse" award.

Conclusion



Palmerton Zinc Pile site (Pennsylvania)

EPA works closely with its partners at Superfund sites across Region 3 to make sure that sites can be reused or remain in continued use safely and protectively during and following cleanup. The businesses and organizations operating on these sites provide jobs and income for communities. They help generate local and state taxes. Cleanup and redevelopment also helps stabilize and boost property values. As of 2013, Region 3 has over 130 NPL and Superfund alternative sites where new uses are in place or continued uses are ongoing. Future uses are planned for many more Superfund sites in Region 3, including renewable energy projects, transportation infrastructure, business parks, recreation areas and public facilities. EPA remains committed to working with all stakeholders to support Superfund redevelopment opportunities in the Mid-Atlantic region.

The reuse of Superfund sites takes time and is often a learning process for project partners. Ongoing coordination among EPA, state agencies, local governments, potentially responsible parties, site owners, developers, and nearby residents and business owners is essential. EPA tools, including reuse assessments or plans, Ready for Reuse Determinations, comfort letters or partial deletions of sites from the NPL, often serve as the foundation for moving forward. At some sites, parties may need to take additional actions to ensure reuses are compatible with site remedies.

Results from across Region 3 indicate that these efforts are well worth it. Superfund sites are now home to large commercial and industrial business campuses, retail stores and restaurants, recreational and ecological lands, public service offices, and diverse small businesses. EPA is committed to working with all stakeholders, using both "tried-and-tested" tools as well as new and innovative approaches, to support the restoration and renewal of these sites as long-term assets for communities in Region 3.

EPA Resources for Superfund Site Reuse

EPA Region 3 Superfund Redevelopment Initiative Coordinator
Christopher Thomas | 215-814-5555 | thomas.christopher@epa.gov

EPA Region 3 Superfund Sites in Reuse Website: list of Superfund sites in reuse for each state in Region 3.
http://www.epa.gov/superfund/programs/recycle/live/region3.html

SRI Website: tools, resources and more information about Superfund site reuse.
http://www.epa.gov/superfund/programs/recycle/index.html

Sources

Business, Job and Sales Information

The Hoovers/Dun & Bradstreet (D&B) database provided information on the number of employees and sales volume for on-site businesses. Hoovers/D&B provides information on businesses and corporations. It maintains a database of over 179 million companies using a variety of sources, including public records, trade references, telecommunication providers, newspapers and publications, and telephone interviews. In instances where employment and sales volume for on-site businesses could not be identified, information was sought from the Manta database.

The BLS Quarterly Census of Employment and Wages database provided average weekly wage data for each of the businesses. Average weekly wage data were identified by matching the North American Industry Classification System (NAICS) codes corresponding with each type of business with weekly wage data for corresponding businesses. If not available at the county level, wage data were sought by state or national level, respectively. In cases where wage data were not available for the six-digit NAICS code, higher level (less detailed) NAICS codes were used to obtain the wage data. To determine the annual wages (mean annual) earned from jobs generated by each of the businesses identified, the average weekly wage figure was multiplied by the number of weeks in a year (52) and by the number of jobs (employees) for each of the businesses.

Business and employment data were collected in 2013. Annual employment income is based on job data estimated in 2013 using BLS average weekly wage data for those jobs from 2012 (the latest available data). All figures presented have been rounded for the convenience of the reader. Federal facility sites are not included in calculations of total businesses, jobs, income or annual sales.

Property Value and Tax Information

Property value and property tax results are based on an EPA SRI effort in 2013 that calculated on-site property values and property taxes for a subset of Superfund sites by comparing available site boundary information with available parcel boundary information and gathering information for selected parcels from county assessor data sets. The property value and tax amounts reflect the latest property value year and tax data year available in county assessor data sets, which varied from 2011 to 2013. All figures presented have been rounded for the convenience of the reader.

Reuse in Action

Write-ups of sites in reuse or continued use included in this study are based on available EPA resources, including SRI reuse snapshots, SRI Return to Use Demonstration Project fact sheets and SRI case studies. Business and property value data included in these write-ups reflect the latest data available. Links to EPA's SRI reuse snapshots as well as the case studies are included below.

SRI Reuse Snapshots

http://www.epa.gov/superfund/programs/recycle/live/region3.html

SRI Return to Use Demonstration Project Fact Sheets

2004. Southern Maryland Wood Treating site.
http://www.epa.gov/superfund/programs/recycle/pdf/southernmd.pdf

2009. Crater Resources site.
http://www.epa.gov/superfund/programs/recycle/pdf/rtu09_crater.pdf

2009. Whitmoyer Laboratories site.
http://www.epa.gov/superfund/programs/recycle/pdf/rtu09_whitmoyer.pdf

2011. Abex Corporation site.
http://www.epa.gov/superfund/programs/recycle/pdf/rtu11-abex.pdf

2011. Palmerton Zinc Pile site.
http://www.epa.gov/superfund/programs/recycle/pdf/rtu11-palmertonzinc.pdf

2012. Mill Creek Dump site.
http://www.epa.gov/superfund/programs/recycle/pdf/rtu12-millcreek.pdf

2013. U.S. Titanium site.

http://www.epa.gov/superfund/programs/recycle/pdf/rtu13-ustitanium.pdf

Economic Redevelopment Case Studies

2003. Chisman Creek site.
http://www.epa.gov/superfund/programs/recycle/pdf/chisman.pdf

2003. Kane & Lombard Street Drums site.
http://www.epa.gov/superfund/programs/recycle/pdf/kane.pdf

2003. Publicker Industries site.
http://www.epa.gov/superfund/programs/recycle/pdf/publicker.pdf

2011. Abex Corporation site.
http://www.epa.gov/superfund/programs/recycle/pdf/abex-success.pdf

Other Resources

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http://www.delawareonline.com/article/20131209/BUSINESS08/312090020/DuPont-s-new-solar-array-presented-unique-challenges?nclick_check=1

Avtex Fibers Superfund Site Community Web page
http://www.AvtexFibers.com

Bridgeway Technology Center Web page
http://www.cpcrealty.com/bridgeway/btc.html

City of New Castle Public Works Department
http://newcastlecity.delaware.gov/departments/public-services/public-works

"DuPont Celebrates Solar Power Project in Newport." *Digital Journal.* December 6, 2013.
http://www.digitaljournal.com/pr/1627819

Joe Zlomek. "Lower Pottsgrove Commerce Park Grows With New Tenants." *The Main Street Post.* August 2, 2010.
http://mainstreetpa.wordpress.com/2010/08/02/lower-pottsgrove-commerce-park-grows-with-new-tenants

Katie Demeria. "Avtex Superfund Site Ready for Redevelopment." *Northern Virginia Daily*. July 2, 2014.
http://www.nvdaily.com/news/2014/07/avtex-superfund-site-ready-for-redevelopment/

Lois Puglionesi. "Havertown YMCA Breaks Ground." *Main Line Times.* May 10, 2012.
http://mainlinemedianews.com/articles/2012/05/10/main_line_times/life/doc4fa9bbe161e53785414163.txt

"The Campaign for the Haverford Township Area YMCA Case Statement."
https://philaymca.org/wp-content/uploads/2012/09/haverford-case-statement.original.pdf

United States Environmental Protection Agency
Region 3
1650 Arch Street
Philadelphia, PA 19103-2029

September 2014 | http://www.epa.gov/reg3hwmd/super